

MDL,GPS/GLONASS 3V0~5V0 FAKRA SMB Female C-code RG174 2M 9 GPSGLONASS03D-S6-15A

1. Application:

This application shall apply for antenna unit which shall be used with an engine for an automobile.

2. Appearance:

Antenna Unit (with radome, connector, and cable - refer to an attached drawing)

Dimensions	34.5*37.5*12.5 mm	; Radome	#D
Weight	38.6±4 g	; acrylic foam tape weight	0.5g±0.1
Connector	FAKRA SMB Female C Code		
Color	Black	; Cable	RG-174
PCB	Lead free		

3. Operating Condition:

Temperature -40 to +80 °C

4. Storage Condition:

Temperature -40 to +85 °C
Humidity 65±20% RH

5. Electrical Specification:

* All value are defined at 25±15 °C, 65±20% RH, power handling 1 u watt, air pressure 960±100 HPA unless otherwise noted.

* Patch characteristics are measured with test ground plane in an anechoic chamber.

■ Patch Specification

Characteristics		Specification
Frequency Range		1570 MHz ~ 1610 MHz
Center Frequency		1593±3 MHz
Bandwidth (10dB return loss)	1575.42 MHz	11 MHz typ
	1602 MHz	26 MHz typ
Gain (zenith)	1575.42 MHz	-1.1 dBic max
	1602 MHz	-4.9 dBic max
Polarization		R.H.C.P.

*test condition: no additional ground plane

UNLESS OTHER SPECIFIED TOLERANCES ON :

X= X.X=±0.4 X.XX=±0.2

ANGLES=± HOLEDIA=

SCALE : UNIT : mm

DRAWN BY: 邱子紋 CHECKED BY: 楊奇峯

DESIGNED BY: 陳政鴻 APPROVED BY: 蘇志銘

TITLE : MDL,GPS/GLONASS 3V0~5V0 FAKRA SMB
Female C-code RG174 2M 9
GPSGLONASS03D-S6-15-A



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■ Filter/LNA Specification

Characteristics		Specification
Frequency Range		1575 MHz ~ 1615 MHz
Gain	1575.42 MHz	18.1±3 dB (3.0±0.1 V)
		22.1±3 dB (5.0±0.1 V)
	1602 MHz	22.9±3 dB (3.0±0.1 V)
		27.9±3 dB (5.0±0.1 V)
Noise Figure		2.0 dB typ
Output V.S.W.R		2.0 max
Operation Voltage		3.0 ~ 5.0±0.1 V
Current	8±3 mA (3.0±0.1 V)	
	16±3 mA (5.0±0.1 V)	

■ Overall Specification (Through Patch and LNA with cable loss)

Characteristics		Specification
Frequency Range		1575 MHz ~ 1615 MHz
Zenith Gain	1575.42 MHz	17.0±3 dBic (3.0±0.1 V)
		21.0±3 dBic (5.0±0.1 V)
	1602 MHz	18.0±3 dBic (3.0±0.1 V)
		23.0±3 dBic (5.0±0.1 V)
Output Impedance		50 ohm
Output V.S.W.R		2.0 max
Operation Voltage		3.0 ~ 5.0±0.1 V
Current	8±3 mA (3.0±0.1 V)	
	16±3 mA (5.0±0.1 V)	

*test condition: no additional ground plane

UNLESS OTHER SPECIFIED TOLERANCES ON :
 X= X.X=±0.4 X.XX=±0.2

ANGLES=± HOLEDIA=



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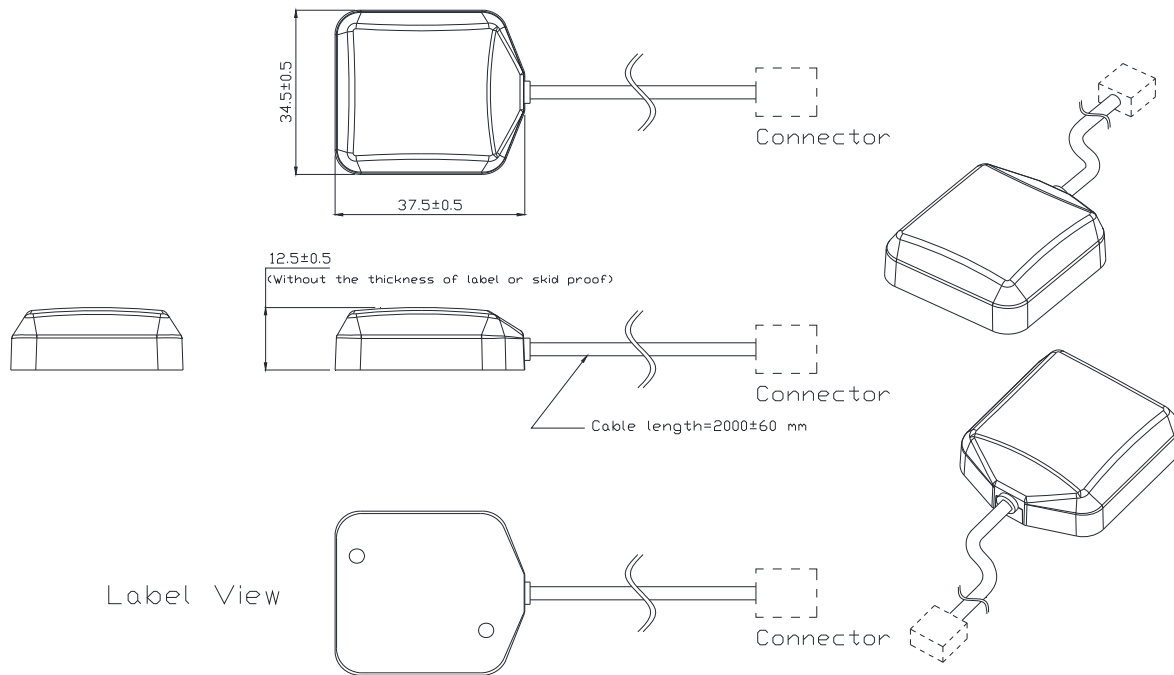
TITLE : MDL,GPS/GLONASS 3V0~5V0 FAKRA SMB
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DOCUMENT NO.

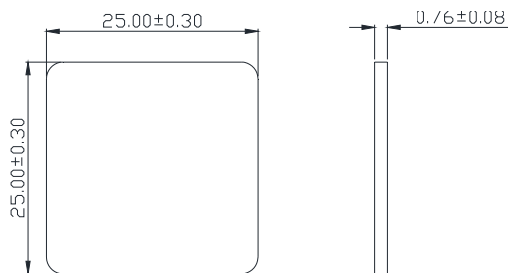
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6. Antenna Dimensions: (unit: mm)

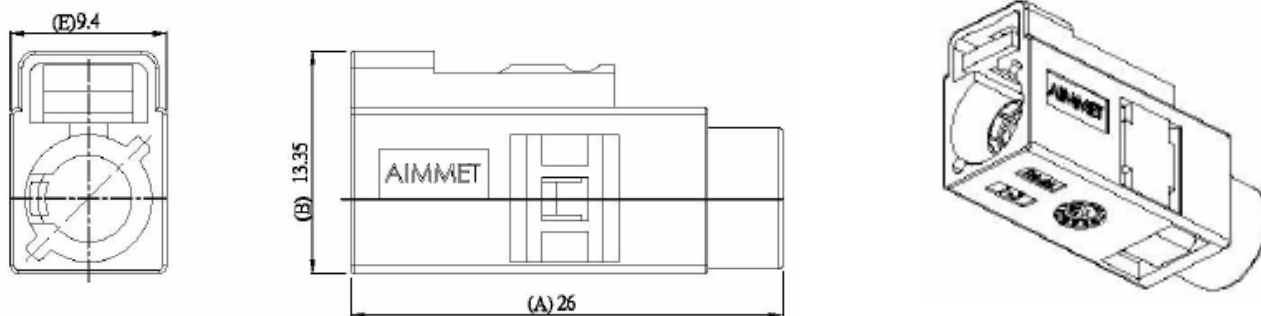


3M acrylic foam tape:



3M Acrylic Foam Tape 5314
Color: Gray

Connector appearance : FAKRA SMB Female C Code



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ANGLES=± HOLEDIA=

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